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ABSTRACT

This paper proposes an interactional model of education for early childhood education and compares this model to two more traditional models (subject dominated and child centered). The aim of educational services for young children should be to provide an environment within which children are able to develop towards autonomy, competence, rationality and sensitivity. In the interactional model, learning occurs when the individual acts upon or reacts to some aspect of the world rather than when something is transmitted or unfolds within the child. The learner is assumed to take an active role in what will be learned, for s/he must engage in some form of reciprocal interchange if learning is to take place. Each child acts with purpose, bringing to the learning situation an exclusive set of capabilities and predispositions. In this model, knowledge is defined as the meanings which are generated as a result of interaction between individual and some object, situation or idea. Education is defined as learning that is intentional. Values are also seen to result from inner and outer experience arbitrated by the sense of self. It is proposed that a central concern of education is the effect that educational experiences have upon the sense of self, and thus on what children accept as right, desirable or worthy. (SB)

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AN INTERACTIONAL MODEL FOR EARLY CHILDHOOD EDUCATION

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

August 1977

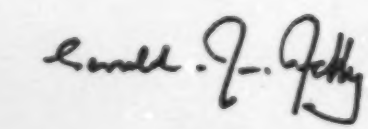
FOREWORD

Since the early 1960's, there has been a major expansion in early childhood education in the provision of services and facilities, and in empirical experimentation with various programs and teaching methods. Many of these developments have drawn heavily on the work of researchers such as Erik Erikson, Benjamin Bloom, J. McVicker Hunt, and Jean Piaget. There are, of course, many others whose contributions may not be as well known but who, nonetheless, have brought important influences to bear upon early childhood education.

One of the most significant findings to have emerged from the various studies which have attempted to evaluate pre-school and early childhood education programs, has been that not all programs are equally valuable. Indeed, it is generally acknowledged that only those programs which balance the development of relatively specific skills and abilities with ample opportunities for self-learning and self-enhancement are likely to have any long term impact. Current re-assessments of earlier findings are tending to support this conclusion, and indicate that the qualitative aspects of such programs persist well into the primary school years.

One fundamental component in providing high quality programs is the degree of 'knowingness' or 'wittingness' of the teacher about the aims of education, especially as far as young children are concerned. While a number of functions of pre-school education in Queensland have already been identified (See Pre-School Facilities, Queensland Department of Education, 1975), these do not adequately tease out the underlying bases and commitments of such education. The purpose of this paper is to identify, and articulate more precisely, these particular aspects of pre-school and, more broadly, early childhood education.

The particular ideas developed within the paper are intended to provide the teacher with a spur to articulating a personal philosophy of education which is both mindful of the moral responsibilities implicit in an activity such as teaching, and responsive to the personal needs, interests and abilities of young children.



GERALD F. ASHBY
Director of Pre-School Education

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PREFACE

This paper has been produced within the Curriculum Branch of the Queensland Department of Education, as the first initiative in the provision of curriculum support for teachers working within the field of early childhood education. It has been prepared in consultation with the Director of Pre-School Education, Gerald F. Ashby, and with officers of the Curriculum Branch, particularly Dr Wayne Haines.

The term early childhood education is generally accepted as referring to the education of children up to the age of seven or eight years. The intended audience for the paper is teachers of children in State pre-schools and lower primary schools. However, it is hoped that teachers of children of all ages, in both State and non-State schools will find the paper of interest and assistance in determining curriculum issues.

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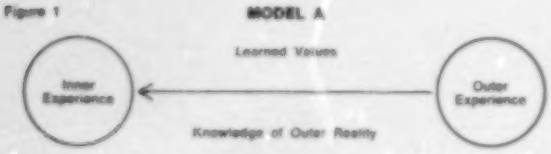
1. INTRODUCTION

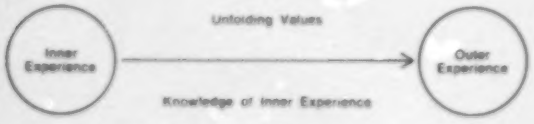
Early childhood education in Australia has been influenced by two traditional ideologies about what constitutes education. The first of these, here termed Model A, is often referred to as the subject dominated perspective, whilst the second, Model B, is usually termed a child-centred perspective on education. The way in which Macdonald (1974) has illustrated the thrust of each of these ideologies in education is shown in figures 1 and 2.

Figure 1



In Model A, education is considered to be a matter of transmitting to the learner that body of knowledge, skills and attitudes deemed valuable by society. Learners are assumed to be essentially behaviouristic, for they are viewed as reacting to the environment rather than acting upon it. Knowledge is viewed as representative of a cultural heritage into which learners must be initiated in order to function intelligently in society.

Figure 2



Education, within the Model B perspective, is concerned with facilitating the unfolding of the inner self in its development toward maturity. Early childhood educators working within this tradition have emphasised the child's 'needs' as the basis for educational planning. Social knowledge does not have a significant place in planning with Model B for all knowledge is perceived as an individual phenomenon concerned with the inner experience of self. Froebel's view (1897) of development as a process of 'natural unfolding', best exemplifies the assumptions about learners within Model B traditions. Froebel's learner acts upon the environment imposing personal meaning upon it, a view which is directly opposed to that held in Model A.

Accompanying the recent widespread interest in early childhood education are challenges to those prevailing educational ideologies. Model A has been attacked for its emphasis on subject-matter to be taught. One objection centres on the question of whose values are promoted in the choice of subject-matter taught in schools (Young, 1971, pp. 31–41); another on the difficulties of relating a set body of knowledge, skills and attitudes to the interests and abilities of individual children (Scheffler, 1973, pp. 67–80). The concept of 'needs' as a basis of planning has been attacked by critics of Model B. These critics point to the value-assumptions which necessarily underlie the interpretation of needs (Dearden, 1968, pp. 14–18) and to the difficulty of separating the needs of society from those of the individual (Foshay, 1962, p. 4). Furthermore, Spodek (1972, p. 41) draws attention to the inadequacies of child observation as the sole basis for curriculum decisions, for the same child will be seen by different educators in different ways depending on the theoretical scheme used to decide which observations are relevant.

Recent trends in the Australian literature related to early childhood education reflect a trend towards putting more emphasis on the child within Model A, and towards specifying knowledge, skills and attitudes to be learned within Model B. However, given the basic assumptions about education, knowledge and learning underlying each of these approaches, it is understandable that those teachers trying to implement educational programs within either modified model are experiencing difficulties. Trying to cater for individual differences when the main thrust of the model is subject-matter, appears to create as many difficulties as does trying to initiate into the cultural heritage when learning is viewed as a process of unfolding potentialities.

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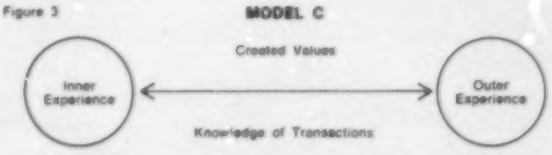
Allied with the trends toward modifying Models A and B there appears to be a tendency to believe that these two models are at either end of the continuum and that a merger of the two is possible. However this is highly unlikely, for the assumptions about learning and knowledge underlying these ideologies are opposed, and the concerns which arise out of these basic assumptions differ so radically as to make integration impossible.

In this paper, a third model, the interactional model, is proposed. This model is based upon a set of assumptions about learning, knowledge, and education which, it is suggested, will account for many of the alleged deficiencies in Models A and B, and will provide a firm basis for planning early childhood education.

Figure 3



2. EDUCATIONAL ASSUMPTIONS

2.1 Learning

Model A and Model B take contradictory stances on learning, yet both stances have some relationship to observed behaviours. The perspective in Model A focuses on evidence which shows that children do learn some of the things they are formally taught. Adherents to the Model B perspective, focus on just as considerable a body of evidence which suggests that children have their own idiosyncratic patterns of development and that these patterns develop from within. Ideas about how education should be implemented are influenced to a large extent by such assumptions about learning. Proponents of Model A emphasise instruction by teachers, while proponents of Model B emphasise child discovery and creative expression. Yet neither of these models satisfactorily explain why children learn only some of the things for which they receive instruction or, indeed, why they learn from external experiences at all if growth and development comes from within.

An alternative to both the transmission and the unfolding perspectives on the learning process, one which encompasses evidence from both perspectives, is a view of learning as interactional. From this perspective, learning is personal and individual, however, it cannot occur in a vacuum. Learning occurs when the individual acts upon, or reacts to, some aspect of the world. From this perspective, learning is neither transmission nor unfolding, but is a dialectic process between inner experience and outer experience. During the interaction, personal ways of interpreting experiences and of behaving are created. Often these personal explanations and behaviours resemble those created by others in society. This occurs because the outer experiences of members of society are often very similar and individuals learn from people as well as from things in the environment. However, learning itself is always a creative, active process of adjusting to outer experiences in terms of inner experiences.

The assumption that learning is interactional has implications for implementing education, just as the previous two sets of assumptions have. Educators working within the interactional model will act as facilitators of educational learning. The relationship between education and learning is discussed further in section 2.5.

Dewey (1940) saw learning as a transaction between self and reality. He was one of the earliest educators to introduce a new dimension to perspectives on learning. He emphasised the need for educators to consider both the subject-matter to be learned and the interests of the learner. His views may be said to have pointed the way towards an interactionist view of education.

A contemporary of Dewey's, George Herbert Mead (1956), in addressing himself to the problem of how a sense of self is developed, adopted what is essentially an interactionist view. He described self as developing through the interpretations made by an individual of the reactions that others have towards the individual. A young child, for instance, may develop a sense of self as intelligent, stupid, attractive, repulsive, creative, worthless, and so on through the interpretations made of the responses

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that teachers have to the child's behaviour in school. Contemporary symbolic interactionists utilise a Meadian stance on learning in addressing themselves to aspects of education in modern society. The influence of social expectations, for example, has been explained in terms of representations of self, of personal attributes and abilities, formed through constant interpretation and re-interpretation of the reactions of others. The extent to which teacher expectations influence the behaviour of the children they teach has been highlighted by many researchers working within symbolic interactionist theory. Nash's analysis (1973) of the influence of ability grouping and teacher interpretations in an English primary school is one outstanding example.

Piaget's name dominates modern educational thinking within the interactionist perspective. Piaget, in the process of addressing himself to the epistemology of knowledge, has developed an interactionist theory for explaining cognitive development. For Piaget, learning cannot be understood in terms of either environmental pressure to change or inner growth and development, for 'there are interactions between organism and environment such that both factors remain on equal footing of co-operation and importance' (Piaget, 1972, p. 99). Piaget describes learning as as process of assimilating reality to prior schemata and accommodating those schemata to the situation in order to attain a state of equilibrium.

Piagetian theory has had a marked impact upon both theory and practice in early childhood education, though as Kohlberg notes (1968, p. 1014), there is a tendency for adherents to both the transmission and the unfolding views of learning to adapt Piagetian theory to suit their basic assumptions. Kohlberg himself has attempted to develop an interactionist ideology based on Piagetian concepts within which education for young children could be implemented. An interesting approach to curriculum design based on Piagetian theory has been under development in Ypsilanti, Michigan, over the last 15 years. Research evidence indicates that this could be a fruitful approach for implementing education based on the interactionist perspective to learning (Weikart, 1977).

Erik Erikson (1950) in addressing himself to the growth of personality also postulates an interactionist theory. For Erikson, growth towards maturity proceeds through stages wherein the individual must resolve crises brought about through attempts to make adjustments between an inner population of sensations and images and an outer population of familiar and unfamiliar things and people. The manner in which successive crises are resolved determines the direction of personality development and the extent of development towards maturity. Erikson, like other interactionists, stresses the marked effect that learning, during the early years, can have on future growth and development.

A growing body of research findings, particularly those based on observational studies of young children, are tending to support interactional theories and the primacy of interaction to learning. This paper adopts in principle the general findings of these studies and makes the following assumptions:

(i) The learner is not a passive recipient, he is an active agent.

(ii) Physical and psycho-social environments exert pressures on this active agent.

(iii) As such, the learner acts and is acted upon, in other words, **interaction** takes place.

2.2 The Learner

Within the interactional model the learner is assumed to take an active role in determining what will be learned, for he must engage in some form of reciprocal interchange if learning is to take place. The learner then, is viewed as a being acting with purpose. The Piagetian explanation for purpose is made in terms of the individual accommodating to, and assimilating from, the environment in the search for equilibrium (Flavell, 1963, pp. 237–249). Hunt (1961, pp. 267–273) elaborates on this notion by introducing the discrepancy hypothesis where curiosity is said to be aroused when something unfamiliar is introduced into a familiar situation. Erikson (1950, pp. 219–222) describes 'purpose' in terms of hierarchically arranged conflicts which arise as the individual interacts within a social environment. Attempts to resolve these conflicts motivate the learner towards particular interactions within the environment.

These theories for explaining purpose adopt a holistic view of the learner, a view where the individual is seen to react, not at a cognitive, or emotional or physical level, but as an entity who

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brings all these aspects of being into each encounter (Kamii, 1975). The implications of such a view would be that educational experiences should be planned in terms of the engagement of the whole person rather than in terms of fostering development at a cognitive, affective, or psycho-motor level.

The learner chooses to interact in order to achieve satisfaction and mastery or, in Piagetian terms, to achieve equilibrium. In the process of interacting he acquires skills, knowledge and attitudes and, on the basis of the satisfaction these give, the learner is motivated toward further interactions. Learning can then be considered to be a cumulative process of constantly building on what has gone before. This can be encouraged in environments which provide ordered experiences related to the learner's present interests and past experiences.

Order, especially in the form of adult guides to acceptable behaviour, is an important variable in determining which behaviours become most characteristic of young children. An extensive study of the growth of competence in children aged 18 months to three years has shown that children develop characteristic modes for interacting within the environment early in life. Burton White and his associates (1973) report that by the time a child is three years of age, certain styles of interactive behaviour have become habituated, and that these styles can be related to recurring environmental experiences, for instance the mother's role in encouraging, initiating and controlling the child's activity.

Individuals act upon, and react to, both physical and psycho-social environments, research evidence suggesting that there is an innate tendency to respond differently to physical phenomena and to people (Silcock, 1976, p. 135). Further evidence indicating the vital importance of interaction with other human beings has been cited by Tanner (1961, p. 107), who stresses that children who are unable to form attachment bonds with other human beings do not thrive. It would appear that young children need to form attachment bonds with other human beings if they are to experience normal growth and development. Schaffer (1971) in his analysis of the significant factors involved in the formation of attachment bonds emphasises the central importance of reciprocal understanding which, he says, only develops as two people learn to make satisfying responses to the communications received from one another. A growing body of educators are now beginning to examine the implications of these findings for educational practice; they include Bruner (1970, p. 113), Katz (1976, pp. 42–46) and Tiberius (1974, pp. 46–59).

In the process of attempting to establish reciprocal communications patterns with an adult, the child, who is to some extent dependent upon the adult, becomes susceptible to the social expectations that the adult has for him. He may be expected to adapt to these expectations in some way that will be personally acceptable yet will enhance the development of a warm, intensive relationship. The adult, too, will make adaptations and adjustments if a reciprocal relationship is to be established.

On the basis of previous interactions with people and with things, the learner develops sets of personal expectations which guide the behaviour patterns which the individual brings to each new learning experience. The notions of a phenotype, a set of cognitive structures and a self-concept are all ways of discussing the role of previous experience in present learning behaviour. All these notions assume a continuity in learning—a continual building on what has gone before—using innate predispositions to act in ways which provide internal consistency to what is learned.

Each child acts with purpose and each child is unique, bringing to the learning situation an exclusive set of capabilities and predispositions. Geneticists explain individuality in terms of a genotype where the potentialities contained in genes differ for all except monozygotic twins. Anastasi (1966) in an analysis of trait development, explores the uniqueness of environments wherein the phenotype represents those potentialities which have been developed through interaction between the genotype and particular environments. Piaget with his schemata, or mental structures, which develop as each individual develops a unique framework for categorising meaning, and Mead, with his concept of self arising out of interpretations of the reactions of others, provide further perspectives on the individual differences that exist between learners, and which affect how the learner reacts to environments.

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The assumptions about the learner which would guide educational decisions based on the interactional model are as follows:

(i) the learner interacts with purpose;

(ii) the learner acts as a whole person;

(iii) the learner builds on past experiences;

(iv) the learner develops characteristic modes for interacting, on the basis of past experiences;

(v) the learner needs to establish reciprocal communication patterns with caring people;

(vi) the learner is susceptible to social expectations;

(vii) the learner develops personal expectations; and

(viii) the learner is a unique human being.

2.3 Knowledge

Learning is a function of the interactions between the individual and those aspects of the environment that have personal relevance. During the interactional process new modes of physical behaviour are generated, feelings are intensified or changed, and ways of explaining the experiences are formed.

Knowledge can be defined as the meanings which are generated as a result of interaction between the individual and some object, situation or idea.

From this perspective knowledge is seen to be essentially a personal phenomenon, an explanation at the cognitive level of the objectives, situations and ideas encountered, and the feelings engendered during encounters, between the inner and the outer world. Without such encounters knowledge could not be generated, though some educational practices seem to operate under the assumption that it is possible to transmit knowledge much as a radio-transmitter passes on information to a network of receivers.

Such educational practices reflect a confusion between what Scheffler (1973) refers to as 'knowledge versus information', and Phenix (1964) calls 'knowing versus knowledge'. Both these educational philosophers acknowledge the possibility of transmitting information, but suggest that this is not the same thing as ensuring that learners possess knowledge which they are able to use. Whilst possessing information may, in some cases, be a prelude to having knowledge which can be operationalised, the two cannot be equated. Continued growth at a cognitive, socio-emotional and physical level would appear to be related to the development of personally constructed knowledge rather than to the acquisition and subsequent regurgitation of verbally held information.

Confusion about the relationship between stored information and operational knowledge is one of the many problems facing educational thinking and practices. Another is a tendency to create a dichotomy between knowledge as personally constructed meanings and knowledge as a specifiable body of information to be learned, and to promote one at the expense of the other. In this paper the assumption is made that both definitions are but perspectives of the same concept and, in the tradition of perspectives, each focuses on one aspect of the same concept.

Social knowledge represents shared sets of meanings used by a society. These shared sets of meanings are solutions to recurring problems faced by members of society interacting in a particular environment. Each new member of society faces some recurring problems and in the process of searching for solutions encounters culturally defined meanings and artifacts. These may be adopted if they prove useful to the individual. Schutz and Luckmann (1973) note the important role that the process of socialisation (which every human being must experience) plays in determining not only which solutions are available to the young but also what they will define as problems. Thus the social environments in which children are reared have an important influence on the ways in which children interact within those environments and on the meanings they construct to explain their experiences; yet the extent to which social knowledge is assimilated will depend ultimately on the extent to which that knowledge contributes to each individual child's sense of satisfaction and mastery.

Underlying these assumptions concerning knowledge is a theme of reciprocity, between the accumulated knowledge held by a society and the child seeking satisfaction and mastery whilst interacting within that society. Knowledge is assumed to be created afresh by each individual, whilst the

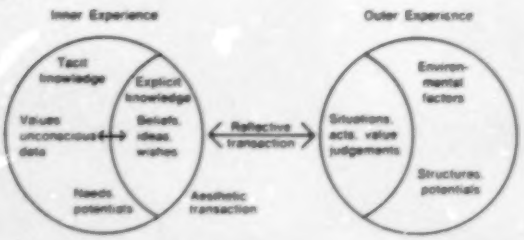
creative process is assumed to be enriched by exposing individual learners to the wealth of information, ideas and artifacts already held within a society.

2.4 Values

Values may be defined as 'certain things that are treated as right, desirable, or worthy' (Raths *et al.* 1966, p. 28). They are guidelines which tend to give direction to life by providing criteria for making decisions. Values are created, just as knowledge is created, as a result of interchange between inner and outer experience, and they are constantly being related back to the experiences that shape them and test them.

The ultimate arbitration in the choice of values to guide decision-making occurs when a person reflects upon the consequences of an action and sounds the depths of inner self; that is a person tests the consequences of an action against those aspects of being that have been conceptualised variously as needs, drives, the unconscious, intuition, or the super-ego. Macdonald (1974, p. 96) depicts that dual interchange that occurs between the social self and the world, and the social self and the inner self, in the following diagrammatic form:

Figure 4



Through the inner dialectic of the self, values are derived. These are the guides which ultimately determine the directions in which individuals move and through the joint action of people, the direction in which a social group moves.

The arbiter in this dual interchange is the sense of self which has developed during the process of socialisation, and it follows that the way a person conceives of self will determine what will come to be regarded as right, desirable, or worthy. This is so for all individuals, teachers as well as learners.

A central concern of education then, is the effect that educational experiences will have upon the sense of self, and thus on what an individual accepts as right, desirable or worthy.

2.5 Education

Learning and education are intimately connected concepts, for education cannot take place without learning also occurring. The distinction between the two lies in intentionality i.e. intention on the part of both learners and teachers. Ashby (1972, pp. 20–24) in his analysis of the concept of education distinguishes three components, these are intention, success and willingness. Learning can be termed 'educational' if there is the intention that something of value will be learned; if there is evidence of achievement in learning what was intended; and the learner is participating in the determination of what is to be regarded as valuable. Within this concept of education, the learner interacts in order to achieve increased control over some aspect of self and/or the environment, and the teacher manipulates the environment to ensure that learners are able to make the learning desired. To take a simple example, the intention on the part of the child to write a story will have a greater chance of a successful outcome if suitable writing materials are provided and the teacher acts as a resource person. If no attempt is made to support the young writer in the above ways frustration and a sense of failure may be what is actually learned, even though the intention on the part of both learner and teacher was that some basic writing skills would be learned along with the ability for creative expression.

Decisions about what types of learning constitute a valid base for educational intent are ultimately value judgments. These must be acceptable to those parents, children and teachers involved in the process as well as to society at large. This is an interactionist view of educational goal-setting, based on the assumption that each individual is part of a wider community, that young learners interact within ever-widening horizons and that educational intentions must be sensitive to the values of the

groups in the wider community with whom learners can be expected to interact as they become functioning members of that community.

Values underlie educational decision-making within the interactionist model, just as they do any other educational model, for the very nature of education implies an intention to promote the learning of something considered desirable or valuable.

We turn now to the assumptions made in this paper about what values ought to be promoted in early childhood education.

3. EDUCATION AND VALUES

Society cannot exist separately from the individual members who comprise it for it exists as a set of shared meanings, structures and artifacts. These are constantly renegotiated by new members of society and are constantly undergoing change, whether at a slow rate, as history tells us occurred during the European dark ages, or rapidly, as appears to be happening in twentieth century western societies.

The present tendency for change to be so rapid that societal members are constantly aware of the renegotiations of meaning, creates some difficulties for those charged with specific tasks within a society. This paper is concerned with two social institutions—the family and the educational institution—for these share a major responsibility for socialising the young. During periods of slow change, tradition can guide the socialisation process. However, during periods of rapid change traditional problems and traditional solutions do not always serve the needs of societal members, and new ways of interpreting self and the world are called for.

Both families and educational institutions face similar problems in deciding how best to help young children become functioning members of society, and the solutions that are reached will in each case involve reference to values, following the assumptions made in sections 2.4 and 2.5. The values to be promoted by educational agencies must be valid in themselves and they must be promoted in ways that enable families to become integrally involved in the educational process. This statement reflects the first value adopted in the paper—that a close liaison between educational agencies and families is desirable for the well-being of individual children and, ultimately, for the well-being of society.

The assumptions made in section 2 about learning, learners, knowledge, values and education have stressed the reciprocal relations, the dialectic, between man and the world. Values have been given a central role in the interactional model for education. The values which guide individual action and, through joint acts, social group action have been said to derive from the self. It would seem that awareness of self as an individual with particular capacities would be the major concern of educational agencies. As Niblett (1954, p. 111) puts it:

> 'If people are to develop a personal sense of values, for use at first hand, it can only be by preserving and developing the sensitiveness, the power to feel and understand, which is theirs already in some degree as a birthright . . .'

He goes on to state that the development of these capacities can be fostered by educating in environments in which there are others who have the attitudes and kinds of sensitiveness that are sought.

Educational philosophers and theorists have sought to describe the kinds of qualities implied by Niblett in many different ways. Scheffler (1973, p. 62), for instance, talks of education's primary concern for the free and critical judgment of the mind in all realms, and a pervasive attempt to strengthen its autonomy and responsibility. Phenix (1964, pp. 267–70) argues that education should encourage the fullest possible realisation of the distinctively human qualities by developing the abilities to create, imagine, analyse, evaluate and synthesise. Biber (1969, p. 25) talks of education nourishing the curious, questioning mind; supporting independence and autonomy; and making the

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world's literature a sweet source of deepening one's own small, private life. Noller (1975, p. 5), drawing on the work of Maslow, describes 'peak experiences' which result in individuals who are at harmony with the world, autonomous, spontaneous and perceptive. Shane (1973, p. 308) portrays a wholesome concept of self developing as individuals construct answers to questions about who they are, what they are doing, and where they are going. In the process they develop skills of social interaction and the coping behaviours in which self-confidence resides, leading to desirable personal-social contributions, acceptance by others and consequent personal happiness.

Such statements as these imply that educational agencies can best serve the young by establishing environments within which a self which is aware of its human capacities and limits can develop. A sense of self as one who is competent in interacting in physical and social settings; able to use rational thought to seek understanding and satisfaction; an autonomously functioning individual who is sensitive to the interrelationships between people and between things; and able to act with sensitivity towards others.

Education then can enhance the development of a desirable sense of self by fostering the development of the following qualities:

(i) the ability to function autonomously within society;

(ii) the ability to function competently in society;

(iii) the possession of powers of rationality in dealing with self and the world; and

(iv) sensitivity to self, other people and the physical environment.

By talking of the qualities desirable in an educated person in terms of the interrelated concepts of autonomy, competency, rationality and sensitivity, it is intended that both the physical and the social milieu in which he interacts will be taken into account, and that the learner will be perceived as an entity who reacts cognitively, affectively and physically rather than in just one of these aspects of functioning.

3.1 Defining the Qualities

Autonomy may be defined as independence developed through interdependence between individuals and the environment. It involves learning to act for oneself, physically, affectively and cognitively, within physical and social contexts. A concern for autonomy tends to centre on the personal dimensions involved in education, with personal ways of expressing self.

Whilst autonomy is concerned with personal aspects, competency focuses upon the social element in education. It is concerned with the development of a sense of 'socialness' which develops through involvement between adult and child, child and child, general environment and the child. As the child develops a sense of socialness, he acquires to the best of his abilities, those understandings, skills and attitudes which allow him to function competently in the society in which he is socialised.

Alongside the development of autonomy and competence and through the exercise of these abilities, the individual may be expected to develop powers of rationality for dealing with self and the world. Rationality is concerned with the exercise of cognition in understanding the world, in critically judging one's own actions and the actions of others, and in developing aesthetic appreciations of self and the world. It involves both logical and intuitive reasoning and is a vitally important aspect of being human.

Sensitivity develops as each individual acquires a sense of being autonomous, competent and rational. It embodies the sense of self, of having attitudes, knowledge and skills which are worthwhile both to oneself and to others. It also embodies the sense of being a person who affects others and is affected by them. This sensitivity is not merely a cognitive awareness, but an awareness which embodies emotion as well.

3.2 Values in the Interactional Model

One or more of the above qualities is usually seen to be of central importance to any statement of educational intent. This paper takes the position that all of these qualities are of equal importance and are best catered for in educational programs

which give equal weight to each. The educated person could be said to be one in whom the qualities of autonomy, competence, rationality and sensitivity are interrelated in such a way as to provide a stable and positive sense of self. Figure 5 shows the way in which each of the qualities discussed become part of the educated person.

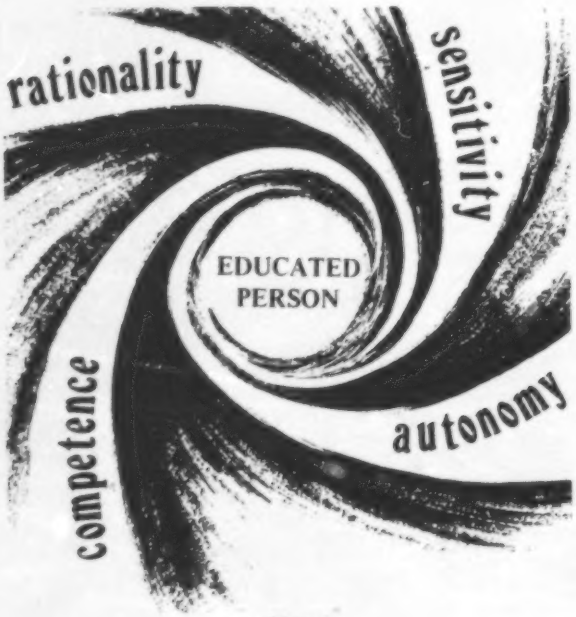

Figure 5

Competence, for instance, can be viewed in terms of preparation for social expectations and initiation into the cultural heritage. These are both legitimate views of educational activity. However, the setting which is ordered to make possible the development of competence alongside autonomy, rationality and sensitivity will differ from one which is ordered simply to promote preparation for something. Competence in the interactional framework will be developed by planning educational experiences where the child is able to interact in progressively more complex settings which, at the same time, enable autonomy, rationality and sensitivity to develop.

Autonomy will develop where the setting is so ordered that children are able to initiate choice in planning and executing their activities. However adherence to a narrowly defined goal of autonomy could possibly allow children to restrict their activities to simple levels rather than develop increasingly more complex forms of interaction. Children play in order to enjoy themselves, and where environments present no challenge physically, cognitively or socio-emotionally they will have no incentive to do more than entertain themselves. Whilst entertainment is a legitimate part of experience, it is hardly justifiable to spend on it public money given for education.

Similarly rationality, when narrowly defined and pursued in neglect of other aspects of development, could inhibit the development of all forms of awareness potentially available to the child. The ability to reason using formal logic, intuition or divergent forms without an accompanying ability to interact competently in society is not conducive to the development of a positive sense of self and sensitivity towards others.

The development of the quality of sensitivity involves all aspects of being human. It involves acting toward self and toward others with understanding and compassion; it involves the ability to function independently yet to welcome the interdependence of social life; it involves the ability to understand and manipulate one's world; and it involves a sense of self as a human being who is autonomous, competent, rational and sensitive.

The promotion of these qualities are educational goals to be pursued with young children and, indeed, with learners of all ages, for learning is a cumulative process, and the learning patterns established in the early years will determine the directions in which learners will seek to project themselves at later ages. Learners who project themselves towards autonomous, competent, rational and sensitive behaviour are acquiring the qualities necessary for the concept of self which underlies a healthy individual and a healthy society.

3.3 Educational Goals for Early Childhood Education

In terms of the assumptions about learning, learners, knowledge, values, education and educational values made in this paper, educational services for young children must aim to provide the environment within which children are able to develop towards **autonomy, competence, rationality** and **sensitivity.**

This environment will be one where educational agencies and families work in close liaison.

4. AN INTERACTIONAL PERSPECTIVE ON THE EDUCATIONAL ENVIRONMENT

Within the interactional model, the learning environment assumes major importance, for learning occurs as children act upon and react to the environment they are faced with. The educational environment incorporates the physical setting where children interact, the organisation of time and space within that setting, the materials and activities provided, the people with whom they interact, and the interactional patterns planned, for educational intent focuses on structuring the environment to promote interactions which lead to growth in desired directions. Decisions about where to base educational services for young children (in the home, in small group settings, in large group settings); about who will provide the services; about what materials will be provided; and about what interactional patterns to establish, are all educational decisions. Architects, administrators, teachers, aides, parents and all others who make such decisions, play a role in structuring learning environments.

What is required is an environment which encourages interaction with those aspects of the physical and social world that foster the development of autonomy, competence, rationality and sensitivity. The assumptions about learning, learners, knowledge, values and education together with the values adopted in this paper provide the basis for determining how to establish an educational environment.

4.1 Four Principles to Guide Decision-Making

Interaction is the basic theme underpinning the assumptions made in this paper. Dialectic, reciprocity and two-way exchange are alternative terms used to high-light the way in which interaction at a number of levels determines how an individual's sense of self evolves.

Allied themes have been touched on in enunciating the assumptions about learning, learners, knowledge and values. For instance the theme of continuity lies behind the assumption that past experiences influence what happens during present interactions, that individuals interact as an entity, that families and educational agencies need to work in close liaison with one another. The role of empathy, of close bonds between adults and children is discussed in the assumption about learners and is implied in the sections dealing with sensitivity. The theme of expectations is introduced with George Herbert Mead and plays a part in explaining learner behaviour, the influence of social knowledge, and the development of a sense of self. Individuality is a theme which underlies the concept of human beings developing their own ways of conceiving reality through interactional experiences.

Education which capitalises on the interactions in which learners choose to engage will be reliant on the dynamics of the environment within which these interactions take place. The four principles which have evolved from the above themes are essential considerations for those who have the task of establishing an educational environment within the interactional philosophy. The principles are:

(i) *Continuity*: learning will be enhanced if educational environments complement and extend learnings made in other contexts.

(ii) *Empathy*: learning is enhanced by the development of reciprocal communication bonds between learners and teachers.

(iii) *Expectations*: social expectations are an important determinant of the goals towards which a child projects himself.

(iv) *Individuality*: each learner is a unique individual, and the environment he is motivated to interact in, is also unique.

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4.1.1 Continuity in Education

Involved in the notion of continuity are the following three dimensions: continuity between settings, continuity within the educational environment, and continuity within the learner.

Continuity between settings

Children (and adults) actively project themselves upon the world. As they assimilate and accommodate to their world, children develop meanings and ways of behaving. These are the tools they use to understand and manage new settings. If a new setting is so strange that these meanings and behavioural patterns are inappropriate, the child is bereft of tools and unable to function adequately. Efficient educational environments should be organised to capitalise on learnings made elsewhere by establishing communication networks between the various settings in which children function, and by building on the learnings made elsewhere.

For instance, continuity could be established between home and school; the school, the home and the community; and the levels within a school. Assigning parents an integral role in educational planning would be an efficient way of ensuring continuity in the education of young children.

Continuity within the educational environment

Learners are active, not passive, and will be motivated to interact with some particular aspect of their environment if it interests them. Arousing interest in an educational environment depends upon finely tuning what is offered so that it is familiar yet challenging. If the environment is too strange, the child will not have the pre-requisite behaviours to respond appropriately to it. If it is too familiar, he will not need to learn anything new to respond to it. Similarly, if the environment is familiar, but too complex for the child's abilities, he will be unable to respond to it or will do so in a confused manner.

Ensuring continuity for the child whilst promoting growth in particular directions involves ordering the educational environment to ensure that what is offered there is intrinsically interesting, and that the interactions engaged in lead to progressively more complex behaviour. This is more likely to occur in a setting which focuses on enriching the environment in ways that are meaningful to the child rather than in one where discrete instructional units are presented to students on the basis of some logic devised by others.

Knowing, having knowledge, is essentially a personal matter (see section 2.2). It is related to personal interests and abilities as well as to previous experiences, and continuity in learning is a personal process having internal consistency and logic. The use of culturally accepted views of logical sequencing may be a useful aid for planning, however, it is but one aid which teachers may use. Other important methods for ensuring continuity within the educational environment include the establishment of rapport between learner and teacher whereby personal interests, understandings and values could be communicated; and observational studies of learners to establish their interactional patterns in the observed setting. Planning then would be a multi-faceted process aimed at facilitating types of learning which promote increasingly more complex modes of interaction leading to a sense of autonomy, competence, rationality and sensitivity.

Continuity within the learner

When children choose to interact with some aspect of their environment, they react at more than a cognitive, physical or socio-emotional level. They react as a whole person with a range of abilities. Effective teaching procedures must take into account the varied possible reactions of the child, for planning and evaluating solely in relation to one aspect of the child's development involves ignoring other learning which occurs at the same time.

The use of a subject-matter/skill focus in early childhood education introduces what Gordon (1976, p. 126) refers to as 'dichotomies and discontinuities' into a process which is essentially continuous and integral. A more efficient and effective focus could be to plan educational experiences which the child could react to and act within, in ways which are challenging and satisfying.

4.1.2 The Role of Empathy

In the educational setting where teachers intend that children will learn to be autonomous, competent, rational and sensitive in their social setting,

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the success of their efforts will depend in part upon the establishment of a reciprocal communication system between teachers and learners. Empathy, the ability to relate and respond to a person, a situation or an idea, is crucial for the development of reciprocal relations and teachers have a special responsibility to organise for interactional patterns which encourage their development.

Teacher here refers to anyone who manipulates the environment in which a learner interacts with the intention of promoting educational learning and who has the ability to structure the environment in such a way that the child interacts in the way intended. With such a view, it is evident that parents are important figures in the environment in which young children interact and are potential teachers, as are those with professional training in education.

The promotion of reciprocal communication based on mutual understanding can be fostered by such strategies as:

(i) developing reciprocal communication systems between the adults who are most involved in a child's education to promote efficient organisation of educational environments;

(ii) organising environments which encourage children to develop reciprocal communications with their peers and others; and

(iii) organising environments which encourage teachers and learners to relate on a one-to-one basis.

4.1.3 The Role of Social Expectations

Human beings do not thrive in the absence of social interaction; conversely through interaction a sense of self develops. The process of reciprocal communication and interpretation of the reactions of others to self as the mechanisms for the development of a sense of self, were discussed in section 2. A further mechanism which affects the outcome of social interaction is that of 'expectations'.

Each participant enters into interactions with a set of expectations which guide reactions in the interchange. For the very young child, who is still in the process of developing a sense of self, the expectations that others bring into the exchange are likely to have an influential effect on the interpretations of self made as a result of the interaction. The concept of the 'self-fulfilling prophecy', originally developed by Merton (1957), stresses the salutary effect that expectations, whether phrased as hopes or fears, left implicit or made explicit, can have on the behaviour of young children. Stone and Church (1973) believe that the self-fulfilling prophecy could be regarded as the single, unifying principle able to tie together the mass of conflicting evidence available about child growth and development.

This principle, together with our knowledge about which people are most likely to interact with young children, suggests that the expectations of parents and teachers are likely to have a significant effect on the behaviour of young children. For instance Nash (1973), in an analysis of the effects of teacher perceptions of pupil behaviour in English primary schools, was able to show a relationship between the expectancies that teachers had for individual children and the subsequent performance of those children. Organisational patterns at school can operate as a function of teacher expectancies, as analyses of the performance of children assigned to ability groups indicate (Mason 1974).

As a positive self-concept is necessary if children are to exhibit autonomous, competent, rational and sensitive behaviour, educational environments will need to ensure that teacher expectations and organisational patterns promote a healthy, realistic attitude toward self. Educational environments should:

(i) Encourage successful achievement by providing interactions with the social and physical world which are matched to the child's developmental level, yet extend him beyond his present level of functioning.

(ii) Avoid emphasis on social competition as the motivational basis for learning as this allows some children to succeed at the expense of others. Repeated failure is not conducive to the development of any of the qualities promoted in this paper.

(iii) Use evaluative techniques which measure a child's attainment against previous attainments and are related to interests as well as abilities. The aim of evaluation is to

diagnose present interests, abilities, and level of development; to measure progress toward desired goals; and to gauge program effectiveness to facilitating experiences which promote growth in the directions desired.

(iv) Ensure that children are prepared, to the best of their abilities, for the social expectations of the society in which they interact, provided these expectations do not contradict accepted educational values. This will involve determining developmental tasks which will equip children for autonomous and competent functioning in the community. It is best undertaken by ordering the educational environment within which the child interacts so that he will want to, and is able to, acquire the desired skills, knowledge and attitudes for successful functioning.

(v) Encourage a child's concept of self as an autonomous, competent, rational and sensitive person within a family which itself displays these qualities. Educational services outside the home will best serve families by supporting and consolidating the efforts of family members to develop and/or extend such qualities.

4.1.4 Individualising Education

Learners are active agents and learning is an interactional process. Each learner is in himself unique, and the environment, as the learner encounters it, is also unique so that learning is a very individualised phenomenon. Educational environments which seek to optimise the learning process will provide individualised education, suited to each child's developmental level, interests and abilities.

Educational environments for young children can be established in a variety of settings designed to suit the needs of the families concerned.

Attempts to individualise educational offerings will depend on the teacher's ability to match experiences to the child's abilities. A knowledge of developmental psychology and skills in child observation will enhance the teacher's ability to do this, as will the development of reciprocal communication patterns between teacher and learner.

Individualised education will also depend on the teacher's ability to match intentions to the child's ability. This will require extensive knowledge which will enable a teacher to order intentions so as to stimulate further learning in the direction required.

4.2 Teacher Behaviour

Adherence to the priniciples of continuity, empathy, expectations, and individuality as these are outlined above, will be conducive to the development of an educational environment within which children will develop in the direction of increased autonomy, competence, rationality and sensitivity. Working within these principles the teacher may be expected to engage in the following types of activity in pursuit of educational success.

4.2.1 Structuring the Physical Environment

Decisions about where to conduct the educational program, about which objects to use in the program, about the people who will be involved, about the use of time and space, and about the interactional patterns to establish are the initial concerns of the teacher.

Setting

The buildings, grounds and finance available, the community involved, and the constraints operating in the particular situation will determine what will actually be used as an educational setting.

Objects

Knowledge of child development, of the needs and expectations of the families involved, and of the resources available to the local community will determine what objects are made available for children to interact with in the educational environment.

People

The numbers of children involved, the ratio of adults to children, the characteristics and needs of the children and the expertise of the adults, all play a part in determining the dynamics of the educational environment. The teacher will be concerned with establishing a balance which is

conducive to personal growth in the intended directions by ensuring that the development of empathy is a basic concern of the adults involved, that adults expect and encourage children to act with increased autonomy, competence, rationality and sensitivity, and that the individuality of all persons involved is respected.

Time and Space

The way in which a teacher structures time and space will influence the meanings which children derive from the setting. For instance, the division of time or space using particular knowledge areas as the criteria will possibly establish the importance of such divisions for the learner. Adherence to the principles of continuity and individuality suggests that the learner be given the opportunity to use time and space in ways that foster personal meaning and mastery in the directions intended by the teacher.

Interactional Patterns

A variety of patterns are desirable in the educational environment established within the interactional model, for children learn from interacting with objects and from interacting with people. In order to foster the development of autonomy, competence, rationality and sensitivity, the teacher will be concerned with achieving a balance between patterns such as the following:

(i) Interactions at the individual level: child with object, child with another child, child with adult.

(ii) Interactions at the small group level: co-operative, adult initiated.

(iii) Interactions at the large group level: adult initiated.

4.2.2 Interacting with Learners

The theme of reciprocity, introduced in section 2, indicates the importance of human interaction for growth and development especially during the early childhood years. The bond of empathy, which Buber (1970) emphasises as the essential feature of the relationships between people, is a recurring theme amongst those searching for effective interpersonal relationships. It is a theme which lies behind the research findings which isolate 'warmth' as an essential trait in the effective teacher.

The teacher working within the interactional model will organise time and space to allow for the development of reciprocal relations between individual learners and the teacher. Techniques such as the following may be employed to facilitate the development of such bonds whilst encouraging educational growth:

(i) expanding on the ideas expressed by learners;

(ii) questioning learners about their activities, ideas, feelings;

(iii) answering questions and giving information;

(iv) supporting the efforts made by learners; and

(v) joining activities as an equal participant, for example enjoying chanting a rhyme together.

4.2.3 Providing for Progression in Learning

Consideration about what knowledge, skills and attitudes ought to be learned cannot be made in isolation from considerations about how learning takes place, for the two are inextricably interwoven. For example, research into the relative effectiveness of a variety of curriculum models for early childhood education indicates that specific content is not a highly significant variable. More important factors appear to be the ratio of adults to children, the expectations that teachers have of the children involved, the extent of parental involvement in the program, and the teacher's organisation of intent. (Bronfenbrenner, 1974; Weikart, 1970; McFadden, 1972.)

It is the last of these factors with which this section is concerned. In the process of organising for learning the teacher will need to make decisions about how to promote the educational qualities valued in this paper through educational experiences. The following concepts are aids to decision-making, which may be of assistance to teachers undertaking this task.

Key Principles

Initiation into the cultural heritage is but one aspect of education. However, it is one which is significant for competent and rational behaviour

within society. Bruner's concept of a spiral curriculum (1974, pp. 137–141) wherein the key principles and central ideas which define a discipline of knowledge are presented to learners in a variety of ways, represents a potentially useful method for teachers to use when organising for initiation. Of course, although teachers may use this form of organisation to create meaning for themselves, learners will accommodate to and assimilate from the experiences in ways which suit their own needs and interests.

Dearden's division of knowledge into learning areas on the basis of different conceptual schemes and different sets of criteria used for evaluating their claims, provides a useful framework for the teacher organising in terms of key principles. The major forms of understanding recommended by Dearden (1972, pp. 61–80) are mathematical, scientific, historical, aesthetic, and ethical.

Developmental Tasks

Havighurst (1974, p. 5) has defined developmental tasks as those skills which society expects a child to be able to accomplish, the child is developmentally ready to accomplish and the child wishes to perform. The use of developmental tasks as an aid for planning and sequencing educational experiences would be one way of providing for community expectations as well as for individual differences, although care would need to be taken to ensure that the tasks chosen by the teacher promoted the educational qualities valued in this paper as well as catering for the expectations of the community involved.

The defining of developmental tasks for a particular child or group of children would need to be undertaken within the immediate social group in which the children interact. For young children the most significant people would be parents and professional teachers.

Developmental Stages

The concept of developmental stages is based on the assumption that learners move through hierarchically organised levels of development, each stage different from the one preceding it, but nevertheless growing from the base laid in the previous stage. Piaget's theory of cognitive development has been successfully used by Weikart and others as a basis for deciding which educational experiences to plan for, and how to sequence these.

Cycles in Learning

Whitehead's view of learning as a cyclic process (1959, Chapter 2) involving initial exploration followed by a desire to attain mastery which, once attained, leads again into exploration, is another way to plan for continual growth and an aid that could account for and incorporate observed patterns in learning.

Children in self-selective learning situations display both the desire to explore phenomena on an individual basis and the desire to repeat activities, often under the direction of someone with perceived expertise in that activity. Attention to the level at which a child is operating at any given moment would help a teacher know whether to provide for new experience or consolidate previous learning.

The Curriculum Web

The knowledge that people use is acquired in a way that has personal consistency and logic. This internal consistency, however, may be very different from the logic which is imposed on culturally-held knowledge over centuries of re-organisation. It may be assumed that individual perspectives on culturally-held knowledge are responsible for the changes that are continually being made to the cultural store of knowledge and values. Personal consistency and logic is closely related to personal interests and previous experiences. The concept of a curriculum web, as developed by Corwin *et al.* (1976), takes observed interests as the focal point for teacher planning and provides opportunities for the teacher to extend the child's range of interests and abilities.

4.3 Learner Behaviour

In the interactional model, the teacher accepts that the learner will interact with the environment in his own idiosyncratic way. Knowledge of child behaviour, one of the requisites for teaching in this model will, however, give a guide to what sort of behaviour to capitalise on to maximise development in the directions desired. For instance the teacher could expect to organise the educational

environment so that children were engaged in the following types of interaction:

(i) *Play*: because play is an activity engaged in with great intensity, involving the child cognitively, emotionally and physically, it is a powerful medium for learning.

(ii) *Experiment*: this is a form of behaviour which is not universally exhibited but which can be fostered in a facilitating environment which capitalises on the curiosity young children so often display.

(iii) *Repetition*: observations suggest that children consolidate learnings that have interested them through repeating them. This can be easily observed in the learnings of skills involving physical activity. The same behaviour is exhibited for other types of learning also.

(iv) *Communication*: young children devote considerable time to communicating socially, in order to understand others and be understood by them, and about their own ideas and concerns, through such activities as constructing, drawing, singing, speaking and writing.

(v) *Sensory input*: children learn through becoming actively engaged with some aspect of the environment. Although young children tend to interact in a global way, employing plenty of physical activity, they also learn when still. Active learning is not to be equated with physical activity alone, but also with the active engagement of the child's mind and emotions. Children learn by watching, listening, feeling, smelling, tasting as well as through gross body movement, and teachers can stimulate learning through all these senses.

4.4 The Object of Teaching

In the interactional model, the teacher is faced with a complex task of planning a match between a particular experience chosen to foster the development of the qualities discussed in this paper, the particular child's interests and abilities, and the child's levels of development.

Educational experiences signify an intent that children will learn something considered desirable. Within this paper, the qualities of autonomy, competence, rationality and sensitivity are seen as desirable and educational experiences will be determined through a consideration of these values in relation to the child concerned. Aids for determining educational experiences are discussed in section 4.2.3.

Level of development refers to the concept of stages of development and/or the child's present level in a learning continuum. It is the teacher's responsibility to assess the developmental level at which the learner is operating.

Interest and abilities refer to those unique attributes which determine what a child will choose to interact with in the environment. The teacher's responsibility in relation to these is to establish a reciprocal communication system so that these interests and abilities can be recognised. The following diagram indicates that equal importance is attached to each aspect of determining the match.

Figure 4

The educational importance of ensuring that there is an appropriate match between circumstances encountered and mental structures already formed has been stressed by J. McVicker Hunt (1961, pp. 267–272) in his analysis of the implications of Piagetian theory for education. Hunt

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postulates a match and discrepancy hypothesis for explaining how growth and development occur. According to this hypothesis, appropriate matches depend upon a discrepancy between what is familiar and what is unfamiliar. In an educational setting a child will be intrinsically motivated to learn in situations which are familiar enough to be non-threatening yet which challenge the child to interact in some way in order to attain increased understanding and mastery. Using Piagetian terminology an appropriate match will involve the child moving from a state of disequilibrium induced by the unfamiliar, to a state of equilibrium through accommodating to and assimilating from the environment.

The accent is on the learner seeking equilibrium in a personal way within a particular environment, and that is the essence of the interactional model of learning. The teacher in the interactional model influences the types of learning made by manipulating the environment to induce states of disequilibrium and equilibrium.

5. CONCLUSION

Within the interactional model for early childhood education, the basic concern is the matching of educational intent, the child's interests and abilities, and the child's level of development. Placing this concern at the centre of the educator's frame of reference reflects the assumptions about learning, knowledge and education outlined in this document.

Curricula devised to implement educational programs for young children then, must revolve around this 'object of teaching' and will necessarily differ from curricula devised to foster education within either the Model A or the Model B perspective. In each case, the assumptions about learning, knowledge and education decide what will be the basic concerns of education. Within Model A for instance, curricula reflect a concern for logical ordering of content, and neat divisions between what is to be learned and how it is to be taught appear reasonable. From the interactionist perspective, there can be no neat ordering of content and divisions between content and method for knowledge is assumed to be personally constructed and sought in many and varied ways according to personal searches for meaning. Ordering for the interactionist will be a very different activity, involving structuring the learner environment in such a way that it has increased meaning for the learner.

Increased knowledge of child development has been the focus of Model B proponents, reflecting their assumption that learning, and therefore knowledge, comes from within, and that individuals develop towards maturity unless the environment militates against the process. Based on these assumptions the task of the educator is primarily one of ensuring that children are not obstructed in their attempts to project themselves on the environment. The teacher here takes all cues about what to do from the child. From the interactionist perspective, the environment is as active an influence on what is learned as is the child who acts on the environment, and the teacher's task is to structure the environment so that certain types of learning are promoted. Educational values adopted within the interactional model will determine what types of learning will be promoted.

A curriculum then within the interactional model will probably differ considerably from the objective, content, method, evaluation form promoted within Model A, and the set of good intentions implied by Model B. It will be a frame of reference which teachers can use to implement educational intentions for young children, and will provide a framework within which all those involved in the educational process can evaluate the success of those efforts.

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